

Claim Listing This listing of claims will replace all prior versions and listings of claims in the application:

1 - 63: (cancelled)

64. (currently amended) ~~The expression vector of~~
~~Claim 53, An expression vector optimized for use in~~
bacterial cells comprising a first nucleic acid sequence
encoding a peptide extension, wherein the encoded peptide
extension is selected from the group consisting of: Peptide
T7C (SEQ ID NO: 5), Peptide T7B (SEQ ID NO: 6), Peptide
T7B1 (SEQ ID NO: 7), Peptide T7B2 (SEQ ID NO: 8), Peptide
T7B3 (SEQ ID NO: 9), Peptide T7B5 (SEQ ID NO: 11), Peptide
T7B6 (SEQ ID NO: 12), Peptide T7B7 (SEQ ID NO: 13), Peptide
10 T7B8 (SEQ ID NO: 14), Peptide T7B9 (SEQ ID NO: 15), Peptide
T7B10 (SEQ ID NO: 16), Peptide T7B11 (SEQ ID NO: 17),
Peptide T7B12 (SEQ ID NO: 18), Peptide T7B13 (SEQ ID NO:
19), Peptide T7A1 (SEQ ID NO: 21), Peptide T7A2 (SEQ ID NO:
22), Peptide T7A3 (SEQ ID NO: 23), Peptide T7A4 (SEQ ID NO:
24) and Peptide T7A5 (SEQ ID NO: 25), the expression vector
further comprising a multiple cloning site for inserting,
in-frame with said first nucleic acid sequence, a second
nucleic acid sequence encoding a protein or polypeptide of
interest, wherein expression of the nucleic acid sequences

20 yields a fusion protein consisting essentially of the
encoded peptide extension fused to the carboxyl-terminus of
the protein or polypeptide of interest.

65 - 92: (cancelled)

93. (previously presented) An expression vector,
optimized for use in bacterial cells, for enhancing the
solubility and proper folding of an expressed protein or
polypeptide of interest, said protein or polypeptide having
an amino-terminus and a carboxyl-terminus, comprising a
first nucleic acid sequence encoding a peptide extension,
which peptide extension is selected from the group
consisting of: Peptide T7C (SEQ ID NO: 5), Peptide T7B (SEQ
ID NO: 6), Peptide T7B1 (SEQ ID NO: 7), Peptide T7B2 (SEQ
10 ID NO: 8), Peptide T7B3 (SEQ ID NO: 9), Peptide T7B5 (SEQ
ID NO: 11), Peptide T7B6 (SEQ ID NO: 12), Peptide T7B7 (SEQ
ID NO: 13), Peptide T7B8 (SEQ ID NO: 14), Peptide T7B9 (SEQ
ID NO: 15), Peptide T7B10 (SEQ ID NO: 16), Peptide T7B11
(SEQ ID NO: 17), Peptide T7B12 (SEQ ID NO: 18), Peptide
T7B13 (SEQ ID NO: 19), Peptide T7A1 (SEQ ID NO: 21),
Peptide T7A2 (SEQ ID NO: 22), Peptide T7A3 (SEQ ID NO: 23),

Peptide T7A4 (SEQ ID NO: 24) and Peptide T7A5 (SEQ ID NO:
25), and further comprising a multiple cloning site for
inserting, in-frame with said first nucleic acid sequence,
20 a second nucleic acid sequence encoding the protein or
polypeptide of interest, wherein expression of the nucleic
acid sequences under physiological conditions yields a
fusion protein consisting essentially of the encoded
peptide extension fused to the carboxyl-terminus of the
protein or polypeptide of interest.

94. cancelled

95. (currently amended) The expression vector of
Claim ~~90~~ 64 wherein the ~~bacterial cells~~ is are selected
from the group consisting of E. coli, B. subtilis, and R.
eutrophus.

96. (previously presented) The expression vector of
Claim 95 wherein the cell is E. coli.

97. (currently amended) The expression vector of
Claim 93 wherein the bacterial cells is are selected from
the group consisting of E. coli, B. subtilis, and R.
eutrophus.

98. (currently amended) The expression vector of
Claim 97 wherein the cell ~~in~~ is E. coli.